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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Stephen James Field

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EXAMINER

ROY, BAISAKHI

ART UNIT

PAPER NUMBER

3737

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/803,882	<b>Applicant(s)</b> FIELD ET AL.	
	<b>Examiner</b> BAISAKHI ROY	<b>Art Unit</b> 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/4/09</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, with respect to 112-1<sup>st</sup> paragraph have been fully considered and are persuasive. The 112 rejection of claims 1 and 3-18 has been withdrawn.

2. Applicant's arguments filed with respect to Arterburn have been fully considered but they are not persuasive. With respect to the hose structure as disclosed by Arterburn, the non-foamed and foamed layers making up the catheter-like tube or shaft structure meets the requirements of the claimed structure. With respect to applicant's arguments regarding the ultrasound visibility of the tube, the claim language is directed to functional language and intended use. The claims do not positively recite the use of an ultrasound device. Therefore the tube or hose, as disclosed by the reference, under broadest reasonable interpretation, meets the structural limitations of the claims.

Therefore Arterburn discloses a device which includes a inner layer of plastic and a second layer of plastic wherein one of the layers or the inner layer 18 is free of gas bubbles and the other layer or second layer 20 includes gas bubbles dispersed within the material of the other or outer layer and wherein the layer free of gas bubbles or the non-foamed layer is thinner than the other foamed layer with the gas bubbles.

Arterburn also teaches said tube to include a foamed layer 14 and a non-foamed outer cover 16 and therefore includes a third layer on the outside of the second layer which is free of gas bubbles (col. 4 lines 13-23). The previous rejection is therefore maintained and repeated below.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-8, 12-14, and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Arterburn (4644977). Arterburn discloses a multi-layered, plastic catheter-like tube or shaft structure which includes non-gas or non-foamed layers and gas-filled or foamed layers (col. 2 lines 46-57). The tube includes a inner tube 18 or which is non-foamed layer and having a thickness of 0.015 inch and the tube includes a second layer 20 which is a foamed layer have a thickness between 0.04-006 inch (col. 4 lines 6-12). The foamed layer or the layer with the gas bubbles is formed by blowing an agent which causes tiny closed air pockets or gas bubbles 38 to be dispersed throughout the layer and therefore the bubbles or air pockets extend around the entire circumference and length of the device (col. 3 lines 23-27, fig. 1-5). Therefore Arterburn discloses a device which includes a inner layer of plastic and a second layer of plastic wherein one of the layers or the inner layer 18 is free of gas bubbles and the other layer or second layer 20 includes gas bubbles dispersed within the material of the other or outer layer and wherein the layer free of gas bubbles or the non-foamed layer is thinner than the other foamed layer with the gas bubbles. Arterburn also teaches said tube to include a foamed layer 14 and a non-foamed outer cover 16 and therefore includes a third layer on the outside of the second layer which is free of gas bubbles (col. 4 lines

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13-23). The tube or hose structure may also be varied as shown in figure 4 which includes a three-layered hose with one foamed interlayer 42 and a inner layer 40 and outer layer 44 free of gas bubbles. Therefore the plastic multi-layered tube includes two non-foamed inner and outer layers that are free of gas bubbles and thinner than the foamed middle layer which includes the gas bubbles. The foamed layer of the tube allows the hose to be resistant to damage, protecting the inter-layers from contact with the fluid flowing through the hose and providing a smooth surface on the hose or tube. Therefore it is necessarily true that such a tube or catheter with a smooth, foamed inner-surface would allow increased visibility of the device or catheter under ultrasound imaging.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arterburn. It would be obvious to include gas bubbles or air pockets of varied dimension dispersed through the material or layer to further enhance the visibility of the foamed layer and function of the tube.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arterburn in view of Glynn et al. (5415634). Arterburn does not teach a transparent tube. In the same field of endeavor Glynn et al. disclose a catheter inflation tube 60

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made from a transparent plastic providing good visibility within the inflation lumen (col. 7 lines 32-37). It would have therefore been obvious to one of ordinary skill in the art to use the teaching by Glynn et al. to modify Arterburn such that the transparent plastic tube provides good visibility within the layer to permit material within the tube to be viewed by the eye.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BAISAKHI ROY whose telephone number is (571)272-7139. The examiner can normally be reached on M-F (7:30 a.m. - 4p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRIAN CASLER/  
Supervisory Patent Examiner, Art  
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BR  
/B. R./  
Examiner, Art Unit 3737